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Remarks

In view of the following discussion, the applicants submit that the claims now pending in the application are not anticipated under the provisions of 35 U. S. C. § 102, or rendered obvious under the provisions of 35 U. S. C. § 103. Thus, the applicants believe that all of these claims are in allowable form.

Independent Claims 1 and 9 and dependent claims 5-6, 13-14 and 17-18 have been previously amended for clarification and to more clearly and distinctly claim the subject matter that applicant regards as the invention.

Response to Examiner's response to Applicants Arguments in item 4 at page 6 of the Official Letter mailed February 26, 2009

It seems that there may be confusion concerning the disclosure of the prior art and the disclosure of the present invention as the Response to Arguments in item 4 at page 6 of the Official Letter and the 35 USC § 103 rejection at page 3 paragraph 4 read: " ...it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute significant quantity at which brightness level occur with the average level in order in order to suppress the marking effect and limit the disturbing effect of the unused display sections, as recited in claim 1."

Applicants respectfully request to recognize that the prior art - "Yoshiya teaches to drive the margin section with a signal computed on the basis of an average level of the video image" and the present invention teaches as claim 1 reads:

"selecting a brightness level according to a **significant quantity at which brightness level occur**" (selecting a main level) or as claim 1 precise reads "evaluating the quantity of similar brightness level in said

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analyzing areas and by **selecting a brightness level according to a significant quantity at which brightness level occur in said analyzing area.**"

That means that Examiner's statements are based on a wrong assumption and the Examiner made a mistake in evaluating the present invention as the present invention has been interpreted as the prior art and not as the invention, therefore the final rejection also for that reason has to be respectfully rejected.

This makes a big difference for evaluating the present invention as it seems to be obvious to select an average level in neighbouring areas of side bars to avoid burn effects as disclosed in the prior art by Yoshiya. However, it is not obvious to deviate from such teaching as it seems to be logical to use an average level to avoid burn effects and the disturbing effect for the viewer -- that in case of a black image with some white points by using the average level of the video image the sidebars are gray instead black -- therefore has to be accepted.

Yoshiya has been filed 1991, which means that burn effects and the disturbing effect are already at least 18 years known for the public. However, although said problem already existed for a very long period of time, nowhere a solution has been disclosed to solve both problems - to avoid both the burn effect and the disturbing effect of gray sidebars in case of a black image with some white points by using the average level.

The disturbing effect is the effect that due to the use of the average level in case of a black image with some white points gray sidebars are displayed. This very long period of time is a further evidence that the present invention is **not obvious and it is not obvious to substitute the average level by selecting a brightness level according to a significant quantity at which brightness level occur to solve both problems mentioned above.**

Furthermore, the Examiner is right that: "On page 6-8 of Remarks in Applicant's response filed December 9, 2008, Applicant's stated that the present invention teaches an improvement by using the main content (main level) of the

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video image, which in difference to the average level ensures that in case of a black image with some white points also the sidebars will be black." However, the Examiner states: "However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (ie., main level) are not recited in the rejected claim(s)." Applicants respectfully disagree as Applicants provided a definition for the meaning of "main level" in the written argumentation concerning 35 U. S. C. § 102 at page 11, that the claims are not anticipated by Yoshiya, which reads that:

"Main value according to the present invention:

- evaluating the quantity at which each brightness level occurs

and

- selecting a brightness level according to a significant quantity at which a brightness level occurs"

Consequently, "main value" has to be understood as a short form for the more precise claim wording "evaluating the quantity of similar brightness level in said analysing areas and by selecting a brightness level according to a significant quantity at which brightness level occur". That means that it has to be noted that the features upon which applicant relies (ie., main level in the meaning of - selecting a brightness level according to a significant quantity at which brightness level occur) are recited in the rejected claim(s). According to common practice - the claim wording recites the invention and remarks explain the meaning for better understanding as in this case **"main value" is an explanation for "significant quantity"**.

Furthermore, the Examiner states at page 6 of the Office Action: "Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)." Applicants disagree as the specification of the present invention e.g. reads at page 5, lines 13 - 17: "Preferably, the at least one predetermined signal is determined by applying a

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threshold to the histogram in order to obtain a significant part of the histogram and taking a medium brightness of the significant part for the at least one predetermined signal. **This step leads to a significant brightness value of the analyzing area.**" and the specification reads e.g. furthermore at page 8, lines 28 – 31: "The advantage of such a concept is to reduce the disturbing effect brought by active sidebars since non-black sidebars have now a luminance level near to the main video content of the active picture." That means that the definition of terms from the specification are clearly read into the claims. Consequently, Examiners statements have to be respectfully rejected.

Also, the following of Examiner's statements is confusing as the Examiner states at page 7 of the Office Action: "On page 6, 3rd paragraph of Remarks, Applicant's stated that None of the cited references neither alone nor in combination disclose or give any hint to reduce the disturbing, effect of active sidebars (sidebars adapting the gray level to the video level to suppress the marking effect (burn in effect)). However, Yoshiya reference in Purpose described how to prevent of burning of margine section (sidebars)."

Applicant used bold letters to point out that "None of the cited references neither alone nor in combination disclose or give any hint to **reduce the disturbing effect of active sidebars**", which of course means the disturbing effect for the viewer as disclosed in the background of the present invention and designated as object of the present invention: "Moreover, **the human eye sensitivity depends on the overall panel luminance**. Therefore, when the scene is dark, the eye will be disturbed a lot by grey sidebars whereas it will not be the same by luminous scenes. Above all, **it will not be very pleasant to watch films with dark scenes having luminous sidebars as shown in Figure 6.**" "In view of that it is the object of the present invention to reduce the visibility of burning effects of display means." (see page 3, lines 28 – 34 and page 4, lines 4 - 5). That means, that the Examiner replies in the above statement on the feature "to prevent of burning of margine section (sidebars)". Needless to say that the burning effect is related to the behavior of the screen,

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which loses its homogeneity; and the disturbing effect of active sidebars as mentioned by Applicants is related to the disturbing effect that in case of a black image with some white points according to the prior art the sidebars are gray and not black. That means that the Examiner argues on a feature, which is different to the cited feature of the claim.

Also Examiner's statements in item 2 at page 7 of the Office Action are not correct as the citation "On pages 12, of Remark, Applicant's stated" is under the headline of "A. 35 U. S. C. § 102" and Applicant's comments related to the 35 U. S. C. § 103(a) rejection follow at page 14. That means that applicants statements are correct in difference to the Office Action, where a headline "Claim Rejections – 35 USC § 103" is missing and the 35 U. S. C. § 103(a) rejection occurs under the headline "Claim Rejections – 35 USC § 102". Therefore, the Applicant explained all cited references in view of 35 USC § 102 under A. 35 U. S. C. § 102 and in view of 35 USC § 103 under B. 35 U. S. C. § 103(a) to avoid further confusion. That means that Applicants comments have been evaluated by the Examiner under a wrong section although Applicants Letter has in difference to the Official Letter a clear structure.

Consequently, **all of Examiner's statements in the remarks are respectfully rejected.**

REJECTIONS

A. 35 U. S. C. § 103

1. Claims 1-2, 9-10 and 15-18 are not unpatentable over Yoshiya (JP 05-075951)

Claims 1-2, 9-10 and 15-18, which have been rejected under 35 U. S. C. § 102(b) in the previous Office Action as being anticipated by Yoshiya (Japanese

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Patent Publication JP 05-075951 published March 26, 1993), now stand rejected under 35 U. S. C. § 103(a) in that "it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute **significant quantity at which brightness level occur with the average level** in order in order to suppress the marking effect and limit the disturbing effect of the unused display sections, as recited in claim 1".

Applicants rely on the argumentation provided in reply to the previous Office Action concerning the Claims 1-2, 9-10 and 15-18 to avoid a repetition as the same statements there made in view of 35 U. S. C. § 102 are valid for 35 U. S. C. § 103 and provide the following comments in view of the new reasons for rejection.

That means that the argumentation provided by Applicants in reply to the previous Office Action concerning the Claims 1-2, 9-10 and 15-18 is here incorporated by reference to said argumentation and the following comments are provided in view of the new reasons for rejection as the Examiner points out in the second item 1 at page 2 of the Office Action: "Claims 1-2, 9-10 and 15-18 are unpatentable over Yoshiya (JP 05-075951)".

The cited reference - Yoshiya - covers the average level, which recommends an obvious solution for the problem to avoid burn effects by adapting the level of side bars to the average level of the adjacent video signal level, which already has been recommended 18 years ago.

The present invention deviates from said obvious solution in that as recited in claim 1, "by evaluating the quantity of similar brightness level in said analysing areas and by **selecting a brightness level according to a significant quantity at which brightness level occur in said analysing area abutting on said one or more unused areas in order to suppress the marking effect and to limit the disturbing effect of the unused display sections.**"

Consequently, in view of 35 U. S. C. § 103(a) converse to the Examiner's Statement, it has to be evaluated whether or not it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the

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average level with the significant quantity at which brightness level occur in order to suppress the marking effect and limit the disturbing effect of the unused display sections, as recited in claim 1 or more precise to substitute average level with evaluating the quantity of similar brightness level in said analysing areas and by selecting a brightness level according to a significant quantity at which brightness level occur in said analysing area abutting on said one or more unused areas in order to suppress the marking effect and to limit the disturbing effect of the unused display sections.

Yoshiya describes a burning preventing circuit 8 that inserts the average level value of the video signal into a margine section (see, Yoshiya at Constitution). This burning preventing circuit 8 receives the video signal of the whole video image to be displayed in the display area, defines the average level value of said video signal and drives the margine section with this average level value. Therefore, Yoshiya teaches to drive the margin section with a signal computed on the basis of an average level of the video image (as also correctly interpreted by the Examiner), however, Yoshiya neither discloses nor gives a hint to drive the margin section:

"by evaluating the quantity of similar brightness level in said analysing areas and by selecting a brightness level according to a significant quantity at which brightness level occur in said analysing area" and "to suppress the marking effect and to limit the disturbing effect of the unused display sections"

The present invention is new and patentable because the **disturbing effect** of unused display sections (so-called margin sections of Yoshiya) is **already known for a very long period of time** (today for at least about 18 years as Yoshiya has been filed 1991).

The present invention evaluates the quantity of similar brightness level in said analyzing areas and selecting a brightness level according to a significant quantity at which brightness level occur in said analysing area, to reduce the

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disturbing effect of active sidebars as it is an object of the present invention "to reduce the visibility of burning effects". The background of the present invention and the object of the present invention read: "Moreover, the human eye sensitivity depends on the overall panel luminance. Therefore, when the scene is dark, the eye will be disturbed a lot by grey sidebars whereas it will not be the same by luminous scenes. Above all, it will not be very pleasant to watch films with dark scenes having luminous sidebars as shown in Figure 6." "In view of that it is the object of the present invention to reduce the visibility of burning effects of display means." (see page 3, lines 28 - 34 and page 4, lines 4 - 5). That means that the specification clearly points out that the problem of the prior art to reduce burning effect - that **when the scene is dark grey sidebars occur** - is solved by the present invention, so that it is an object of the present invention **to reduce the visibility of burning effects.**

Said object of the present invention is neither disclosed nor suggested by cited references, which is a further indication that the present invention is patentable.

Furthermore, according to common practice, it is a tool for evaluating the patentability of a solution, to check, whether or not the claimed solution may be read on the prior art:

- It is obvious that the claimed features are different to the prior art. (no anticipation).
- The claimed features can not be derived from the prior art and also the results of applying the features of the prior art and applying the features of the present invention are different.

The means which are used to avoid the burn effect are different as Yoshiya detects the signal level of the effective video signal and based on said detection result the brightness difference of the image section and the margin section is held small. (see, Yoshiya at paragraphs [0007] and [0008]).

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According to the present invention as recited in independent claims 1 and 9: **“the quantity of similar brightness level in said analyzing areas is evaluated and a brightness level according to a significant quantity at which brightness level occurs” is selected.**

Someone could argue that a case may be possible, where the brightness level according to a significant quantity at which brightness level occurs may be the same brightness level as the average level. However, this is related to an effect different to the disturbing effect, because it is only possible if the video signal is significant gray and gray sidebars in case of a gray image are not disturbing for a viewer. However, due to the different means, which work differently on a video signal, sidebars and margin sections, respectively, change differently although both ensure the homogeneity of the display. The present invention deviates from the general concept of Yoshiya to hold the brightness difference of the image section and the margin section small and avoids the disturbing effect caused by applying said concept. Furthermore, the problem solved by the present invention can not be solved neither with the means nor by the concept of the prior art.

Applying the features of the prior art solves the burn effect (ensuring homogeneity of the display although there are unused areas (sidebars)) and **causes** gray sidebars as disturbing effect in case of dark scenes with view white points. It is not possible to reach the same result as it is reached with the present invention by the means of the prior art. Consequently, there are at least the reasons mentioned above, which indicate that **the present invention is patentable over Yoshiya** and Examiner's statements are respectfully rejected.

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2. Claims 5-8,13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiya *as applied to claims 5, 11 above*, and further in view of Milch et al. (US 7,002,59382).

Claims 5-8 and 13-14 stand rejected under 35 U. S. C. § 103(a) as being unpatentable over Yoshiya (Japanese Patent Publication JP 05-075951 published March 26, 1993) in view of Milch et al. (U. S. Patent 7,002,593 issued February 26, 2006). The applicants submit that these claims are e.g. already therefore not rendered obvious by the combination of these references as said claims are dependent on claims 1 and 9 as shown above.

Claims 5 and 13 depend from claims 1 and 9, respectively, and describe a method and device in which the signal is computed by evaluating brightness values concerning the quantity at which brightness level occur in one of said analysing areas and by selecting a brightness level according to a significant quantity at which brightness level occur - by "a histogram of brightness values of one of said analysing areas" for computing said at least one predetermined signal. This feature of claims 5 and 13 is neither disclosed nor suggested by Yoshiya.

This feature of claims 5 and 13 is not disclosed by Milch et al. either. Milch et al. relates to a method for reducing the power used by the display in a portable electronic device. A format pre-processing is used to modify the information format to reduce bright pixels in the display. The information content is not modified. Milch et al. teaches to reduce the light of some pixels (pixels of text within the display area) so as to reduce the overall average brightness of the display area. Milch et al. does not teach to modify the brightness of unused areas (outside the display area). Furthermore, Milch et al. does not teach to use analysing areas which are part or parts of the display area to modify the brightness of unused areas.

Furthermore, the combination of Yoshiya and Milch et al. fails to recite a method and device as described in claims 5 and 13 as according to claims 5 and

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13 one or more analysing areas within the display area are defined. These analysing areas are selected to directly abut on the unused areas of the display area. They are used to compute the signal to be supplied to the unused areas (sidebars or margine section) by evaluating brightness values concerning the quantity at which brightness level occur in one of said analysing areas and by selecting a brightness level according to a significant quantity at which brightness level occur. This guarantees that the unused areas are adapted to directly adjacent areas. Thus, claims 5 and 13 are patentable over the combination of Yoshiya and Milch et al.

Claims 6-8 and 14 are directly or indirectly depend on claims 5 or 13, respectively. Therefore, for the same reasons as mentioned above for claims 5 and 13, claims 6-8 and 14 are also patentable over Yoshiya in view of Milch et al.

CONCLUSION

Thus, the applicants submit that none of the claims presently in the application are rendered obvious under the provisions of 35 U. S. C. § 103. Consequently, the applicants believe that all of the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application,

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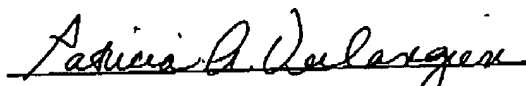
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it is requested that the Examiner telephone Ms. Patricia A. Verlangieri, at (609) 734-6867, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



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